

JW

please keep for next  
Patent Committee meeting

JSO

8/19/81

Law Department  
Patent Section

0000015562

## DISCLOSURES DOCKET

Philip Morris Incorporated  
Privileged and Confidential

10 August 1982

Code 1 - Offensive/Urgent  
Code 2 - Defensive/Urgent  
Code 3 - Offensive/Normal  
Code 4 - Defensive/Normal

653 A METHOD FOR PREPARING A RECONSTITUTED TOBACCO  
PRODUCT USING PRECIPITATION/COAGULATION OR CROSS-  
LINKING TECHNIQUES

G. Keritsis  
Tobacco Fundamentals/Watson/Turano

The disclosure relates to smoking materials and the processes for making them through the use of extrusion and/or coating techniques for tobacco smoking formulations.

Related to 641 and 1038; see also 689.

Inskeep/F&N/Shaw

1-9-81 New examples received from inventor.  
1-19-81 File reopened.  
2-19-81 Further write-up received from inventor.  
3-31-81 Further write-up received from inventor.  
4-10-81 Disclosure materials to Depaoli for evaluation.  
4-21-81 Disclosure materials returned by Depaoli--possible conflict of interest.  
5-18-81 Recommend sending to F&N ASAP.  
6-10-81 Discussed with F&N in connection with 1038, etc.  
6-25-81 Disclosure to F&N for evaluation.  
7-21-81 Disclosure to R&G.  
11-11-81 Letter to Shaw: Keritsis believes we should proceed.  
12-28-81 PM annual report 81-210 to F&N.  
1-6-82 Brought up during Shaw visit here.  
4-16-82 Conference with Shaw, Keritsis and Nichols. Latest update data promised.  
6-29-82 Supplemental disclosure received.

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0000015563

689 PROCESS FOR INCREASING AND MAINTAINING INCREASED  
FILLING POWER OF TOBACCO PRODUCTS

G. Keritsis  
Tobacco Fundamentals/Watson/Turano

This invention relates to the art of increasing the filling power of tobacco filler. More particularly, this invention relates to a process whereby cross-linking agents are added to the tobacco and are reacted therewith to increase the strength of the smoking materials.

Related to 641; see also 653.

Inskeep/F&N/Spitals

11-80	New data received.
12-80	Split out of 641--new data to WLKT for consideration.
5-18-81	Recommend sending to F&N ASAP.
9-18-81	Disclosure to F&N for application preparation.
1-82	Draft application expected soon.
3-31-82	Draft received--to inventor for review.
4-28-82	Comments, additions, corrections for draft received from inventor and SAH.
5-17-82	Above forwarded to F&N.
6-2-82	Inventor's additional comments on draft to F&N.
6-25-82	Redraft received--to inventor for review.
7-7-82	Inventor's comments on draft to F&N and SAH.
8-13-82	Application received in final form.

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0000015564

## 779 MEANS TO MEASURE TOBACCO FIRMNESS ON CIGARETTE MAKER

J. Osmalov  
Development Engineering/Mutter/Turano

A cigarette rod firmness control device has a firmness detector head comprising a differential transformer coupled to a detector shoe, which is biased toward and rides on a dynamically-flowing rod of tobacco. The detector shoe is displaced to and from the axial center line of the tobacco rod in response to the firmness of the rod, which is dependent on the rate of flow of tobacco into the rod forming garniture. The tobacco feed rate into the rod forming garniture is increased or decreased in response to signals generated by the level and the variations of rod firmness at the detector shoe to control rod firmness to within desired limits.

Note: See our 4033360 (Nienow et al.) and SN 226569 (Irving)

Sarofeen  
5-25-77 Disclosure received.  
Given to G. Brandt.  
2-8-80 Memos from Gannon to Palmer and Kothe re status.  
2-12-80 GMJS expects to receive a written analysis/opinion from  
Brandt that this disclosure is anticipated.  
3-7-80 Opinion received.  
3-11-80 Inactivated pending further developments.  
7-18-80 Reactivated, new information on its way.  
7-21-80 New information received.  
9-4-80 Need more details of short tongue construction.  
11-5-80 New data not yet compiled--per C. Irving.  
1-15-81 No new data at this time.  
6-24-81 Instrumentation received and new design is in the making.  
7-15-81 In-house search completed.  
9-10-81 Experiments are successful; newest mode is in need of  
further evaluation in view of very close prior art.  
12-17-81 Assigned to R&D docket for follow up.  
7-15-82 Reassigned to Patent Staff docket.

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0000015565

796 BIOSYNTHESIS OF A TOBACCO FLAVORANT OR TOBACCO SMOOTHER--FERMENTED TOBACCO

B. Semp (Park 500), D. Teng, and S. Tenhet  
Biomaterials/Whidby/Farone

Organisms obtained from fermented tobacco are transferred into sterile tobacco extracts and by employing various fermentation techniques, flavorants similar to those present in fermented tobacco are produced. These flavorants may then be applied to various tobacco materials to enhance or enrich their subjective organoleptic characteristics.

INACTIVE Inskip/F&N/Spitals  
CODE 2

10-28-77 Disclosure received.  
8-78 Preliminary search completed on PM data base.  
3-79 Experimental work underway.  
9-6-79 Additional art found on "accelerated fermentation" and forwarded to inventors. Similar concepts disclosed in US 516778 and 1262622.  
9-10-79 Memo to inventors reviewing prior art.  
9-79 Search requested from outside firm.  
10-15-79 Search received; results under evaluation; report to be written.  
6-24-80 Memo to inventors requesting a review of memo dated 10 September 1979. Awaiting response regarding search results.  
7-24-80 Report of search results written by B. Monroe and sent to inventors.  
9-10-80 No response yet from inventors regarding search results.  
3-2-81 Note to Dr. Farone regarding status; he responded indicating that this particular concept will be actively pursued.  
6-29-81 Recommend sending to F&N.  
12-81 No further input presently expected; proceed with filing.  
2-3-82 Disclosure to F&N for application preparation.  
4-7-82 Spitals conference with Inskip.  
4-19-82 Letter from F&N outlining minimum info needed--forwarded to Whidby.  
7-23-82 Inactivated by agreement among R&D directors, SAH, and GEI.

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0000015566

857 LASER OPTICAL SYSTEM

E. Grollimund  
Engineering/Kay/Taylor

A precision lens centering and focusing structure which comprises novel features for providing precise control and stability for a laser optical system.

FILED Sarofeen/F&N/Diana

CODE 2

11-27-78 Disclosure received.  
3-79 Search to be done when indicated.  
11-19-79 John Torrente is scheduled to complete the general laser search soon. This case may then be advanced for action once again.  
1-24-80 General laser search is complete. Case will now be evaluated for disposition.  
3-7-80 Disclosure sent to WLKT for application preparation.  
4-17-80 Torrente visit to advance this case.  
6-17-80 Discussed with Torrente.  
9-4-80 Final draft being prepared.  
1-15-81 Scheduled for reevaluation.  
5-18-81 To be discussed with F&N.  
5-24-82 Diana here to discuss draft with inventor.  
7-27-82 Executed and sent to F&N for filing.

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0000015567

894 USE OF PIPERAZINES AS FLAVORANTS AND/OR COOLING COMPOUNDS

W. Edwards and Y. Houminer  
Chemical Research/Sanders/Osdene

This invention provides smoking compositions which contain a diacylpiperazine additive such as 1,4-(2-methyl-propionyl)-2,3,5,6-tetramethylpiperazine. The preferred diacylpiperazine additives impart enhanced flavor response and smoothness.

Inskeep/D&O

CODE 4

5-7-79	Disclosure received.
11-20-79	Experimental and synthesis work completed; analytical smoking data will be obtained in the near future.
3-14-80	Sanders indicated that the work was near completion. A draft should be ready shortly.
9-10-80	Houminer indicated that they will organize data and submit for application.
4-13-81	Formal disclosure being prepared by Houminer.
9-17-81	Work completed, awaits inventors' write-up.
2-22-82	Inventors' write-up received.
4-5-82	Disclosure to D&O for application preparation.
5-18-82	First draft received--to inventors for review.
6-23-82	Inventors comments on draft to D&O.
7-30-82	Redraft received--to SAH for management review.
8-10-82	Draft with management comments returned to GEI.

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0000015568

933 SPIRAL-WOUND PACKED BED BIOCATALYTIC REACTOR

H. Bravo  
Biomaterials/Whidby/Farone

The invention involves a spiral-wound packed bed reactor consisting of a tube containing a flexible foam which may be smooth or contain indentions. On this foam are adhered segmented packets of encapsulated microorganisms which perform specific biochemical reactions. The encapsulated cells are segmented to facilitate and control flow rates and prevent compaction.

Gregory/F&N/Haley  
CODE I

11-2-79 Disclosure received--inventor notified.  
12-79 Assigned to Hutcheson.  
1-8-80 Discussed with inventor and manager. Must investigate prior art before processing.  
2-11-80 Inventor to organize data for disclosure.  
3-29-80 Met with Gillis of WLKT to discuss disclosure and state of the art.  
7-22-80 Memo to inventor with copy of pertinent paper for review of data and other prior art papers; state of the art search on biocatalytic reactors requested.  
8-1-80 Search results received. Several patents, numerous papers and thesis are of interest.  
1-81 Gillis indicated she will have comments regarding all cases related to immobilization shortly.  
4-81 Case placed on "hold".  
5-18-81 Discussed with F&N.  
6-29-81 Recommend sending to F&N for application preparation.  
7-28-82 F&N asked for opinion on scope of patent protection obtainable.

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0000015569



935 MATERIALS AND METHOD FOR THE MANUFACTURE OF PELLETS (PI)

H. Bravo

Biomaterials/Whidby/Farone

The invention is a method for producing pellets containing live microbial cells or active enzymes. To make the pellets, the cell or enzyme solution is reacted with celite 545 (filter aid), glutaraldehyde, and polyethyleneimine, which are added sequentially. The end product consists of highly permeable pellets in which the protein on the outer wall of the microorganism or on the enzyme has reacted with the polymeric ingredients added.

Gregory/F&N/Haley

CODE 2

11-5-79 Disclosure received--inventor notified.  
12-79 Assigned to Hutcheson.  
1-8-80 Discussed with inventor and manager. Must investigate prior art before processing.  
3-5-80 State of the art search requested; papers sent to inventor for review.  
3-29-80 Met with Gillis of WLKT to discuss disclosure and state of the art.  
3-21-80 Questions on process to inventor.  
7-24-80 Search results to inventor and Gillis; Gillis to determine patentability.  
8-25-80 Discussed with Gillis during visit.  
10-20-80 Celite info to Gillis.  
1-81 Gillis indicated she will have comments regarding all cases related to immobilization shortly.  
4-81 Case placed on "hold".  
5-18-81 Discussed with F&N.  
6-29-81 Recommend sending to F&N for application preparation.  
7-28-82 F&N asked for opinion on scope of patent protection obtainable.

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0000015570

936 MATERIALS AND METHOD FOR THE MANUFACTURE OF PELLETS (PI)

H. Bravo  
Biomaterials/Whidby/Farone

The invention is a method for producing pellets containing live microbial cells or active enzymes. To make the pellets, the cell or enzyme solution is reacted with celite 545 (filter aid), glutaraldehyde, and polyethyleneimine, which are added sequentially. The end product consists of highly permeable pellets in which the protein on the outer wall of the microorganism or on the enzyme has reacted with the polymeric ingredients added.

Gregory/F&N/Haley  
CODE 2

11-5-79 Disclosure received--inventor notified.  
12-79 Assigned to Hutcheson.  
1-8-80 Discussed with inventor and manager. Must investigate prior art before processing.  
3-5-80 State of the art search requested; papers sent to inventor for review.  
3-29-80 Met with Gillis of WLKT to discuss disclosure and state of the art.  
3-21-80 Questions on process to inventor.  
7-24-80 Search results to inventor and Gillis; Gillis to determine patentability.  
8-25-80 Discussed with Gillis during visit.  
10-20-80 Celite info to Gillis.  
1-81 Gillis indicated she will have comments regarding all cases related to immobilization shortly.  
4-81 Case placed on "hold".  
5-18-81 Discussed with F&N.  
6-29-81 Recommend sending to F&N for application preparation.  
7-28-82 F&N asked for opinion on scope of patent protection obtainable.

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0000015571

937 SAPONIFIED UNSATURATED FATTY ACIDS

H. Bravo  
Biomaterials/Whidby/Farone

The invention is a method for producing pellets containing live microbial cells or active enzymes. To make the pellets the cell or enzyme solution is reacted with celite 545 (filter aid); saponified unsaturated fatty acids i.e. sodium oleate, linoleic acid, linoleic acid, Joy liquid soap, White Dive liquid soap, etc. and polyethyleneimine, which are added sequentially. The end product consists of highly permeable pellets in which the protein on the outer wall of the microorganism or on the enzyme has reacted with the polymeric ingredients added.

Gregory/F&N/Haley  
CODE 2

11-5-79	Disclosure received--inventor notified.
12-79	Assigned to Hutcheson.
1-8-80	Discussed with inventor and manager. Must investigate prior art before processing.
3-5-80	State of the art search requested; papers sent to inventor for review.
3-29-80	Met with Gillis of WLKT to discuss disclosure and state of the art.
3-21-80	Questions on process to inventor.
7-24-80	Search results to inventor and Gillis; Gillis to determine patentability.
8-25-80	Discussed with Gillis during visit.
10-20-80	Celite info to Gillis.
1-81	Gillis indicated she will have comments regarding all cases related to immobilization shortly.
4-81	Case placed on "hold".
5-18-81	Discussed with F&N.
6-29-81	Recommend sending to F&N for application preparation.
7-28-82	F&N asked for opinion on scope of patent protection obtainable.

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0000015572

943 RAPID REORDERING WITH AN APRON DRYER

F. King, Jr. and P. Sherman  
Engineering/Kay/Taylor

A method and apparatus for drying tobacco and expeditiously reordering it to a desired moisture content immediately following the drying cycle. A shortened path tobacco dryer comprising a conveyor belt is made with a first stage heating section and a second stage cooling section. A third stage tobacco free fall area is provided where moisture is added on the fly after the tobacco is dropped from the belt at the end of the cooling section. The tobacco is made to fall in the form of a curtain of substantially single layered leaf or sheet through an aqueous mist where moisture is readily reabsorbed to reorder the tobacco.

Schardt

12-7-79	Disclosure received--inventors notified.
1-21-80	Assigned to Sarofeen.
2-80	PM data base search completed--results to inventors for review.
6-27-80	Disclosure sent to WLKT for preparation of application.
8-5-80	Disclosure and in-house search to WLKT.
9-4-80	Discussed with Brandt; meeting set for October.
10-22-80	Request from Brandt for more information--request forwarded to Kay and inventors.
12-8-80	Additional info to Brandt.
1-15-81	Draft expected soon.
5-18-81	Sarofeen to complete WLKT draft application.
7-10-81	Reassigned to JES.
8-81	Application redrafted, claims drafted; to be put in final form.

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0000015573

950 APPLYING ADHESIVE TO TIPPING PAPER

F. Sherwood and T. Van Auken (Manufacturing)  
Tobacco Fundamentals/Watson/Turano

Adhesive can be applied to tipping paper in a skip-tip pattern using nozzles with a steady flow. This can be achieved by either of two methods. Method A: A masking belt, with the intermittent part of the skip-tip pattern cut in it as openings, passes between a set of nozzles and the tipping paper. The masking belt is then drawn away, and a second set of nozzles completes the skip-tip pattern by applying adhesive to areas requiring an uninterrupted laydown of adhesive. Method B: The skip-tip pattern is obtained by spraying a stream of adhesive droplets through an electrical system which puts a charge on the droplets, and then deflects the droplets from the paper where dry areas are required using an electric field.

Schardt

CODE 2

2-1-80	Disclosure received--inventors notified.
3-14-80	Disclosure sent to WLKT for application preparation.
3-19-80	In-house search completed--results to inventors/Kothe.
6-20-80	Remarks from T.V. on search.
1-14-81	Outside search completed; questions being readied by WLKT.
3-23-81	Letter to WLKT stating that we would like to take this case off their hands unless they have a draft nearly finished.
3-27-81	Search results received.
5-18-81	Recommend sending to F&N ASAP.
9-81	Reassigned to Schardt.

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0000015574

954 CIGARETTE MAKER WITH TEMPERATURE CONDITIONING

J. Remington

A method and apparatus for producing a tobacco rod which is resistant to damage normally inflicted during the cutting and tipping function in a cigarette making apparatus which consists in method and apparatus for refrigerating the tobacco filler prior to entry into the maker to a temperature of between 32° to 60°F. Cooling coils are provided in a feed chamber wherein the tobacco filler is recirculated for cooling to desired temperature prior to being fed to the maker on a continuous basis.

Related to SN 111521.

FILED Sarofeen  
2-20-80 Disclosure received.  
2-21-80 Memo to Kay requesting supplemental disclosure information.  
2-27-80 Kay took back disclosure to add additional information.  
3-31-80 In-house search completed.  
4-11-80 Meeting with Engineering to discuss follow-up details.  
6-27-80 Disclosure sent to WLKT for patent application preparation.  
9-4-80 Draft in final states of preparation.  
1-15-81 Torrente expects to deliver application before 3-1-81.  
5-18-81 For discussion with F&N.  
6-24-81 This case as recently developed is of broader scope and importance and consequently the specification needs to be reworked. Memo sent to J. Kay regarding new data requirements.  
1-4-82 First draft completed and reviewed with D. Gillespie.  
6-2-82 Final draft to inventor for review.  
6-29-82 Inventor's comments received.  
8-2-82 Executed and mailed to PTO.

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0000015575

**972** IMPROVEMENT OF LASER PERFORATOR

E. Cashwell  
Engineering/Kay/Taylor

A single rotatable beam chopper-reflector disc is configured to separate a focused light beam into stirred sequence linear segments, then to reflect and re-direct the segments so as to utilize the total beam, or a real time scale for doing work such as perforating paper at spaced intervals positioned at discrete points selectively spaced to suit a particular intended purpose for the perforated paper such as for use as a cigarette wrapper.

Related to 974 and 984.

Sarofeen/F&N/Diana

7-7-80 Disclosure received--inventor notified.  
9-4-80 Inventor is adding to the disclosure.  
9-20-80 Received additional information needed to prepare application.  
1-15-81 974 and 998 combined herewith; work on first draft begun.  
1-21-81 Disclosure to WLKT for application preparation.  
3-23-81 WLKT instructed not to do any further work on this case.  
5-18-81 Recommend sending to F&N ASAP.  
9-9-81 Disclosure to F&N for application preparation.  
7-28-82 PM 974 and 998 split back out into individual cases.

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**974** A DISC TO PULSE AND SUBDIVIDE A CONTINUOUS LASER BEAM

P. Martin  
Physical Research/Kassman/Farone

A technique developed to use a single disc to pulse and subdivide a continuous laser beam. The disc is simply constructed and can either be bevelled or inclined of an angle. A mirror is introduced to refocus the reflected beam and to either pass it back through the rotor or direct it to the final focussing lense.

7-14-80 Disclosure received--inventor notified.  
1-15-81 Combined with PM 972.  
7-28-82 Split back out as separate case.

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0000015576

986 POWER METER

E. Stultz (Louisville), M. Barnette, W. Smick  
Engineering//Taylor/Kay

Object: Power will be maintained at a given level without variation concerns due to line voltage changes, gas flow changes, and/or any fluctuations in other laser parameters including environmental conditions. Description: Use of a Power Meter output from an end mirror type to feed an electronic signal to increase or decrease laser power to a present level and thereby maintain and control laser output power. With this device a detector of holes in a web of laser perforated paper can be used to accurately control the quality and/or pressure drop of holes laser perforated into the web of paper by feeding back this signal to control the stabilized laser power.

Sarofeen/F&N/Diana

9-9-80 Disclosure received--inventors notified.  
1-21-81 Disclosure to WLKT for application preparation.  
3-23-81 WLKT instructed not to do any further work on this case.  
5-18-81 Recommend sending to F&N ASAP.  
9-9-81 Disclosure to F&N for application preparation.  
11-3-81 Additional disclosure materials to F&N.  
5-25-82 Additional disclosure materials to F&N.

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0000015577



990 PROCESS FOR MAKING NON-COMBUSTIBLE CARBONIZED MATERIAL AND CARBON FILTER MADE OF SUCH MATERIAL

N. Rainer and C. McClung  
Tobacco Fundamentals/Watson/Turano

A process is provided for making non-combustible carbonized material, and carbon filters made of such material, according to which porous cellulosic material is contacted with a film-forming aqueous solution of an inorganic salt selected from the group consisting of alkali metal and ammonium silicates, carbonates, hydrophosphites, diphosphites, phosphites, hypophosphates, orthophosphates, diphosphates, triphosphates, polymetaphosphates, peroxyphosphates, peroxydiphosphates, orthoborates, metaborates, tetraborates and mixtures thereof so that the cellulosic material contains at least about 1%, preferably from about 2% to about 6%, of the salt on a dry weight basis and then pyrolyzing the treated cellulosic material in an inert atmosphere at a temperature of at least about 700°C., preferably from about 750°C. to about 900°C., under conditions such that at least about 15%, preferably from about 20% to about 40% of the initial weight of the cellulosic material remains after pyrolysis.

Related to 955.

FILED Blish/F&N/Shaw

9-16-80 Disclosure received--inventors notified.  
10-30-80 Further information received.  
1-26-81 First draft completed.  
3-2-81 In-house search completed.  
3-25-81 Pilot plant in 2 months to manufacture full size rod.  
3-26-81 Reassigned to Inskeep for possible combining with PM 955.  
5-4-81 Reassigned to Blish.  
6-9-81 Disclosure to F&N for application preparation.  
9-2-81 Background art to F&N.  
10-6-81 Shaw indicated he is waiting for more info from Rainer.  
10-21-81 Draft to Adkins.  
10-16-81 Draft to inventors for review.  
11-9-81 Draft returned to F&N for final form indicating hold until Adkins and Holtzman review.  
12-2-81 F&N redraft reviewed with inventors.  
12-22-81 Draft and comments returned to F&N.  
1-12-82 Redraft received.  
1-27-82 Redraft to inventors for review.  
2-11-82 Additional draft revisions to F&N.  
3-11-82 Redraft received--to F. Newman in NY for review.  
4-21-82 SAH asked about commercial value; if none, application will not be filed.  
5-12-82 Executed and mailed to F&N for filing.

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0000015578

992 AUTOMATED DE-CHOKER DEVICE

J. Gregory III  
Engineering/Taylor/Kay

Tobacco traveling upward in a chimney is decelerated prior to striking a suction belt in order to prevent breakage by diverting part of the air flow through a screen. Periodic chokes in the screen are cleared by mechanically rotating the dechoker device 90° counter-clockwise so that the air flow which is normally diverted through the dechoker device flows through the screen in the opposite direction, clearing the screen of tobacco.

Blish

9-18-80 Disclosure received—inventor notified.  
9-24-80 Assigned to Blish.  
6-18-81 Prior art search completed.  
9-29-81 Search reviewed and discussed with inventor.  
12-16-81 Draft application to inventor for review.  
3-25-82 Inventor asked to expedite draft review.

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995 LASER TEMPERATURE STABILIZATION AND DEW POINT CONTROL SYSTEM

E. Grollimund  
Engineering/Tew/Taylor/Kay

A method of increasing laser power output per unit of input power by controlling and adjusting air humidity and temperature and oil temperature.

Sarofeen/F&N

9-23-80 Disclosure received—inventor notified; assigned to Sarofeen.  
1-15-81 996 combined herewith.  
1-21-81 Disclosure to WLKT for application preparation.  
3-23-81 WLKT instructed not to do any further work on this case.  
5-18-81 For discussion with F&N.  
10-2-81 US 4286604 to Shaw.  
1-5-82 Under study to determine advisability of filing.  
2-82 GMJS to review.  
8-5-82 Disclosure to F&N for application preparation.

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0000015579

997 FILTER ROD GROOVING TECHNIQUE

W. Mutter  
Engineering Services/Mutter/Turano

Related to 1001, FTR 1034, and 1007.

Gregory  
10-2-80 Disclosure received--inventor notified.  
10-3-80 Letter to Kothe asking for analysis and opinion.  
10-13-80 Torrente visit.  
3-23-81 WLKT instructed not to do any further work on this case.  
5-18-81 For discussion with F&N.  
6-25-81 Needs to be coordinated with other Barclay-type cases.  
8-13-81 No U.S. filing.

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998 METHOD FOR CAPTURING AND UTILIZING LASER ENERGY

E. Grollmund  
Engineering/Kay/Taylor

Sarofeen/F&N/Diana

10-4-80 Disclosure received--inventor notified.  
1-12-81 Combined with PM 972.  
7-28-82 Split back into single case.

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1007 MANUFACTURE OF FLUTED PLUGS

A. Gillespie, K. Stover, and W. Sanderson  
Engineering/Kay/Taylor

The invention is the addition of a system of rollers to a filter making machine to deform an otherwise round plug into a desired shape.

Related to 1001; see also 1033, 1034, 1035 (FTR).

Gregory  
12-10-80 Disclosure received--inventors notified.  
1-21-81 Disclosure to WLKT for application preparation.  
3-23-91 WLKT instructed not to do any further work on this case.  
5-18-81 For discussion with F&N re Barclay situation.  
6-24-81 Needs to be coordinated with other Barclay-type cases.  
8-21-81 To proceed in view of decision to file PM 1001 in U.S.  
1-5-82 Recommend sending to F&N for application preparation.

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0000015580

**1010** HEATED DIE FOR CARBONIZED MATERIAL WITH ESSENTIALLY  
CIRCULAR CROSS-SECTION

D. Full  
Biomaterials/Whidby/Farone

A heated die is divided into four segments slidable with respect to adjacent segments so that when opposing segments move together and forward, other segments are moving out and back. Thus, friable material may be formed and drawn through the dye by the action of the dye.

Blish  
CODE 4

1-21-81 Disclosure received--inventor notified.  
6-8-81 Patentability search requested from K&S.  
4-15-82 Search results received--to inventor for review.  
4-28-82 Inventor's comments on search received.  
7-15-82 Draft application to inventor for review.  
7-19-82 Draft to SAH for review.  
7-27-82 Farone/Whidby comments received.  
8-3-82 Redraft to inventor for review.

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**1013** SELF-CLEANING VACUUM PORT

E. Grollmund and D. Brookman  
Engineering/Taylor/Kay

Related to 1042

INACTIVE Blish  
2-5-81 Disclosure received--inventors notified.  
6-11-81 Prior art search requested.  
4-7-82 Disclosure reviewed with inventors.  
5-3-82 In-house search completed.  
6-11-82 Inactivated--close art.

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0000015581

**1015** BURN CONTROL AGENTS

R. Jenkins, Jr.  
Chemical Research/Sanders/Osdene

Addition of burn control agents to the central region of a cigarette to reduce sidestream visibility and gaseous smoke. The reduced visibility would improve consumer and non-smoker acceptance.

INACTIVE Palmer

2-13-81 Disclosure received--inventor notified.

3-4-82 Memo to inventor: any active interest? SAH asked to help review.

6-82 Inactivated per R&D.

\* \* \* \* \*

**1016** PROCESS FOR UTILIZING TOBACCO FINES IN MAKING  
**CIP** RECONSTITUTED TOBACCO

G. Gellatly  
Tobacco Materials/Burns/Turano

A process for employing tobacco fines in a system for preparing reconstituted tobacco is disclosed. The tobacco fines are incorporated into concentrated extract before the extract is recombined with the reconstituted sheet or into an aqueous carrier. The slurry of fines in extract or other carrier is passed through a homogenizer and then is applied as a coating to the sheet. The further drying and shredding are done in the conventional way.

Gregory  
8-3-82 Draft application to inventor for review.

\* \* \* \* \*

0000015582

**1017** PROCESS FOR UTILIZING TOBACCO FINES  
CIP

G. Gellatly  
Tobacco Materials/Burns/Turano

A process for incorporating tobacco fines into strip is disclosed. The fines are combined with casing and the combination is homogenized to reduce the particle size and produce a uniform distribution. This is then sprayed by the casing applicator system onto strip; the dried product is no more dusty in subsequent cutting and handling than is strip without the added fines.

Gregory  
8-3-82      Draft application to inventor for review.

\* \* \* \* \*

**1018** A MECHANICAL TOBACCO PROCESSOR

I. Uydess  
Biomaterials/Whidby/Farone

A mechanized tobacco processor for the preconditioning, infiltration, heating and/or "expansion" of tobacco under constant temperature, RH, etc. within a closed circular "tower" similar in configuration to a "cyclotron."

Inskeep/F&N/Shaw

CODE I

2-19-81      Disclosure received--inventor notified.  
2-25-81      Disclosure to WLKT for application preparation.  
5-18-81      Recommend sending to F&N ASAP.  
9-11-81      Inventor leaving company; he discussed with F&N. They will proceed to prepare application.  
1-82          F&N attorney needs to consult with engineers here.  
1-18-82      Memo from SAH to Merritt & Lilly: review disclosure with view towards rendering engineering advice to F&N.

\* \* \* \* \*

0000015583

1020 FLUTED FILTER HOLDER

M. Garthaffner  
Engineering/Kay/Taylor

This filter holder holds a filter cigarette against a rubber seal which is installed in the insert. In doing so it seals the rear of the filter except for a 4 mm diameter hole through which smoke is drawn. The rubber seal prevents a by-pass of the filter.

INACTIVE Blish

2-25-81 Disclosure received--inventor notified.  
8-17-81 Memo to inventor confirming receipt of disclosure and  
indicating a need to meet and discuss details.  
7-12-82 Inactive--close art.

\* \* \* \* \*

1021 ACOUSTICAL PANELS

A. Uhler, Jr.  
Engineering/Kay/Taylor

Object of the invention is to prevent tobacco beetle infestation by using 20 mesh screen in an acoustic absorption panel and yet allowing maximum sound absorption.

Blish  
2-25-81 Disclosure received--inventor notified.  
2-18-82 Search requested from K&S.  
3-22-82 Search results received.  
7-22-82 Search results to Kay for review by inventor.

\* \* \* \* \*

0000015584

## 1022 ACOUSTICAL BAFFLES

A. Uhler, Jr.  
Engineering/Kay/Taylor

Object of the invention is to prevent tobacco beetle infestation by use of spunbonded olefin, which is a tough and cleanable and allows good sound absorption, as a facing material on an acoustical absorber.

Blish  
2-25-81 Disclosure received—inventor notified.  
2-18-82 Search requested from K&S.  
4-26-82 Search results received—to inventor for review.  
7-22-82 Search results to Kay for review by inventor.

\* \* \* \* \*

## 1023 TOBACCO CUTTER DIAMOND PATTERN

R. Lanier and R. DeVilbiss  
Engineering/Kay/Taylor

A diamond pattern tobacco cutter designed to replace the thresher used in the RL plant or the slitter-cutter used in the BL plant. Use of two rollers, one with helical blades and the other with mated helical grooves are used to achieve uniformity in size, to produce a smooth edge when cut, to minimize scrap, and to reduce operational cost.

Blish  
2-25-81 Disclosure received—inventors notified.  
9-18-81 Prototype installation in about 3 weeks.  
10-1-81 In-house search completed.  
4-22-82 Search results to inventors for review.  
4-28-82 Prior art discussed with inventors.

\* \* \* \* \*

## 1024 ROTARY SAW BLADE SHEET CUTTER

R. Thatcher and J. Tomanovits  
Engineering//Kay/Taylor

Objects of the invention include improving rotary cutter for cutting RCB tobacco sheet, reducing the cost of operating and maintaining equipment, and improving product quality.

Related to 1055, 1075, 1076, 1068

Sarofeen/F&N/Diana  
2-25-81 Disclosure received—inventors notified.  
4-12-81 Outside search requested of Kirk & Smith.  
6-1-81 Search results received.  
6-8-82 Conference with Diana and inventors.  
6-11-82 Disclosure to F&N for application preparation.

0000015585



**1027** OXIDATION OF TOBACCO IN PRESENCE OF POLYVALENT METAL  
BASE

N. Rainer  
Tobacco Fundamentals/Watson/Turano

Objects/advantages: increased CV of tobacco filler by virtue of a stiffening effect; low processing cost; no attritional degradation; no species added foreign to tobacco.

Related to 983.

Palmer/F&N/Shaw

3-4-81 Disclosure received--inventor notified.  
1-82 Inventor pursuing.  
2-5-82 Transferred to R&D docket.  
5-6-82 Supplemental disclosure submitted to patent staff.  
5-11-82 Disclosure to F&N for consideration as to whether there is any basis for preparation of a new application as it may bear on other work.  
6-1-82 Copy of PM 983 to Shaw.  
6-21-82 Copy of PM 774 and 797 to Shaw.

\* \* \* \* \*

**1037** MECHANICAL DEVICE FOR UNTYING KNOTS IN BURLAP TOBACCO  
SHEETS

R. Devilbiss  
Engineering/Kay/Taylor

INACTIVE Blish  
4-13-81 Disclosure received--inventor notified.  
3-31-82 Inventor interviewed--search requested.  
5-3-82 In-house search completed.  
6-11-82 Inactivated--close art.

\* \* \* \* \*

0000015586

**1039** PROCESS FOR INCREASING THE FILLING POWER OF TOBACCO

J. Banyasz, C. Owens, E. Mooz, C. Lilly, P. Martin, H. Merritt, B. Semp  
(Park 500)

Biomaterials/Whidby/Farone  
Physical Research/Kassman/Farone  
Process Development/Turano

The present invention relates to a process for increasing the filling power of tobacco which comprises heating the tobacco at elevated temperature while maintaining the OV and SV values of the tobacco substantially constant. Preferably, the tobacco is heated at a temperature of at least about 80°C. in a closed system for a time sufficient to increase the CV value of the tobacco. Tobacco having an OV value within the range of from about 10% to about 16% is preferred although tobacco having an OV value within the range of from about 4% to about 35% is effectively employed. The treated tobacco has a pleasing aromas and flavor and a virtually undiminished alkaloid content.

FILED Inskeep/F&N/Shaw  
CODE 2

4-28-81	Disclosure received--inventor notified.
6-10-81	R. Shaw of F&N here to interview inventors--he will prepare application.
6-30-81	Background information on pending US expansion cases to F&N.
10-7-81	Shaw to proceed with application preparation.
10-22-81	Shaw interview with Banyasz; need notebook pages.
11-25-81	Notebook pages to Shaw.
12-17-81	PM report 81-262 to Shaw.
3-25-82	Shaw asked to indicate target filing date.
4-8-82	Draft received combining 1039, 1040, and 1048.
4-16-82	Shaw conference with Mooz and Banyasz.
4-21-82	Redraft received--to inventors for review.
4-29-82	Approval and comments received from management.
5-26-82	Comments on draft to F&N.
6-16-82	Redraft received.
6-23-82	Executed and mailed to F&N for filing.

\* \* \* \* \*

0000015587

**1040** THE USE OF SUGARS AND CONTROLLED MOISTURE PROFILES IN  
THE HEAT TREATMENT OF TOBACCO

J. Banyasz, C. Lilly, P. Martin, B. Semp (Park 500), H. Merritt, C. Owens  
Biomaterials/Whidby/Farone  
Physical Research/Kassman/Farone  
Process Development/Turano

COMBINED Inskeep/F&N/Shaw

CODE I

4-28-81 Disclosure received--inventor notified.  
6-10-81 R. Shaw of F&N here to interview inventors--he will prepare application.  
6-30-81 Background information on pending US expansion cases to F&N.  
10-7-81 Shaw to proceed with application preparation.  
10-22-81 Shaw interview with Banyasz; need notebook pages.  
11-25-81 Notebook pages to Shaw.  
12-11-81 PM report 81-262 to F&N.  
4-8-82 Combined with PM 1039.

\* \* \* \* \*

**1042** SELF-CLEANING POROSITY MONITOR GAGING HEAD

E. Grollmund, W. Smick, D. Brookman  
Engineering/Taylor/Kay

A high-speed dynamic porosimeter including a device for removing accumulated dust is disclosed. The porosimeter has an apertured surface, preferably curved, across which a web whose porosity is to be measured is drawn while suction is applied to the apertures. A pressure transducer monitors the pressure in a sensor line or chamber, which pressure varies as a function of the porosity of the web. A scraper blade scrapes dust from the apertured surface from time to time. Preferably, vacuum suction is also applied to a slot at the upstream side of the apertured surface to ensure a good seal between the web and the surface.

Sarofeen/F&N/Diana

4-29-81 Disclosure received--inventor notified.  
9-9-81 Disclosure to F&N for application preparation.  
10-27-81 Prints of monitor to F&N by inventor.  
5-24-82 Conference between Diana and various Engineering personnel.  
7-23-82 Documents received from F&N for comment.  
8-3-82 Comments to F&N.

0000015588

\* \* \* \* \*

**1048** A PROCESS FOR THE EXPANSION OF BRIGHT FILLER

E. Mooz  
Biomaterials/Whidby/Farone

Related to 1038-1040.

A process for the expansion of bright filler with ammonium carbamate and with no puffing agent before and after cylinder treatment.

COMBINED Inskip/F&N/Shaw

CODE 1

6-15-81 Disclosure received--inventor notified.  
6-17-81 Disclosure to F&N for evaluation with respect to 1038-1040.  
10-7-81 F&N instructed to prepare application.  
10-22-81 Shaw interview with inventor  
11-5-81 Additional disclosure materials to F&N.  
3-25-82 Shaw asked to indicate target filing date.  
4-8-82 Combined with PM 1039.

\* \* \* \* \*

**1052** POSITIVE PLUG FEED SYSTEM

M. Barden, W. Pettigrew, A. Collins  
Engineering/Kay/Taylor

A positive plug feed apparatus is disclosed wherein an upper lug belt and lower lug belt form an inclined expanding throat which forces filter plugs into a reservoir. The incline of the throat is such that the filter plugs enter the reservoir along the shear lines of the stacked filter plugs and reservoir thus reducing the force necessary to push new filter plugs into the partially full reservoir.

Blish

6-26-81 Disclosure received--inventor notified.  
8-29-81 In-house search completed.  
4-2-82 Disclosure reviewed with inventors.  
4-7-82 Additional disclosure material received.  
5-24-82 Prior art to Kay for review by inventors.  
6-7-82 Drawings sent to Development Engineering for completion.  
6-8-82 First draft to Kay for review by inventors.  
7-28-82 Drawings to Kay for review by inventors.

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0000015589

## 1055 ROTARY CHEVRON SHEET CUTTER

M. Anderson and R. Thatcher  
Engineering/Kay/Taylor

A method and apparatus for cutting sheet material such as reconstituted tobacco sheets into shards of substantially regular form. A multi-chevron shaped plate-like cutter bar comprises an obverse cutting edge of alternative peaks of 90° angles and valleys of 90° angles, and an oppositely formed reverse cutting edge of similar complementary arrangement with the peaks of the reverse cutting edge positioned opposite to the valleys of the obverse edge and the valleys of the reverse cutting edge positioned opposite to the peaks of the obverse cutting edge. The plate-like cutter is mounted for rotation on an axis through the length of the plate along its center line parallel to and midway of the obverse and reverse cutting edges.

Related to 1023, 1024, 1075, 1076, 1068

Sarofeen/F&N/Diana

7-1-81 Disclosure received--inventors notified.  
1-5-82 Possible conflict with PM 1023.  
3-3-82 Disclosure reviewed with Kay; he requested that we conduct search.  
5-21-82 K&S requested to do search.  
6-3-82 Search results received.  
6-8-82 Conference with Diana and inventors.  
6-11-82 Disclosure to F&N for application preparation.

\* \* \* \* \*

## 1056 TOBACCO DRYING

D. Lowitz and J. Crump  
Biomaterials/Whidby/Farone

Schardt  
CODE 2

7-1-81 Disclosure received--inventors notified.  
7-10-81 Discussed with inventor Crump; 7-13 discussed with inventor Lowitz.

\* \* \* \* \*

0000015590

1060 RELEASE SYSTEM

Y. Houminer  
Chemical Research/Osdene/Sanders

INACTIVE Inskeep  
6-25-81 Disclosure received.  
2-1-82 Assigned to Inskeep.  
7-13-82 Houminer, SAH, AIP agreed to inactivate.

\* \* \* \* \*

1062 LASER MICROMETER CIRCUMFERENCE GAUGE

W. Nichols  
Cigarette Development/Meyer/Gauvin

The object of the invention is to provide a uniform force on the exterior of a compressible cylindrically shaped article that will preclude the sensing of surface irregularities on the cylinder while being measured.

Schardt  
7-14-81 Disclosure received--inventor notified.  
9-17-81 Discussed with inventor.

\* \* \* \* \*

1064 TRANSFER DEVICE

J. Wheless  
Engineering/Kay/Taylor

This device is comprised of pockets (supplied with vacuum) attached to two rotating plates. These plates are rotating about offset center lines. The pockets are held to the plates with a pair of pivots op<sup>o</sup> to each other. There is a pair of these pivots at each end of the pockets, which connect the pockets to both plates. The plates are both driven independently at the same speed to reduce the forces on the pivots. As the plates rotate, the pockets are forced to remain parallel and continue facing the outside of the device. This facing the outside allows the product to be picked up or discharged at any point. Remaining parallel allows the product to be transferred from one location to another, or change the direction of movement without changing the product orientation.

Schardt  
7-20-81 Disclosure received--inventor notified.

\* \* \* \* \*

0000015591

**1068** LEAF STRIPPER DRUM WITH OVERHEAD DIVERGING STRIPPER CHAINS

F. King, R. Thatcher and M. Anderson  
Engineering/Hayward/Kay/Taylor

Object: the invention is intended to strip lamina from stem on whole leaf tobacco while increasing lamina size and reducing (a) degradation, (b) dust generation, (c) lamina tearing, and (d) power requirements per pound processed.

Related to 1024, 1055, 1075, 1076

Sarofeen/F&N

7-23-81 Disclosure received--inventor notified.

6-2-82 In-house search completed.

8-5-82 Disclosure to F&N for application preparation.

\* \* \* \* \*

**1075** CUT TOBACCO PICKER FOR SIZING AND SEPARATING

R. Thatcher and L. Turano  
Engineering/Hayward/Pasquine/Kay

Object of the invention is to take a feed or pile of whole cut leaf tobacco and end up with a sized, separated, usable filler.

Related to 1024, 1055, 1076, 1068

Sarofeen/F&N/Diana

8-7-81 Disclosure received--inventors notified.

3-3-82 Transferred to Engineering docket.

6-8-82 Conference with Diana and inventors.

6-11-82 Disclosure to F&N for application preparation.

7-21-82 Proposed claims received.

7-30-82 Letter to F&N: claims OK; will conduct search.

\* \* \* \* \*

0000015592

**1076** LEAF STRIPPER PLATTEN WITH OVERHEAD DIVERGING STRIPPER CHAINS

F. King and R. Thatcher  
Engineering/Hayward/Taylor/Kay

Object: the invention is intended to strip lamina from stem on whole leaf tobacco while increasing lamina size and reducing (a) degradation, (b) dust generation, (c) lamina tearing, and (d) power requirements per pound processed.

Related to 1024, 1055, 1075, 1068

Sarofeen/F&N

8-7-81 Disclosure received--inventors notified.  
6-2-82 In-house search completed.  
8-5-82 Disclosure to F&N for application preparation.

\* \* \* \* \*

**1077** INFINITELY VARIABLE DELIVERY FILTER

J. Adams  
Engineering/Hayward/Taylor/Kay

Blish  
8-1-81 Disclosure received--inventors notified.

\* \* \* \* \*

**1078** INTERRUPT AND DIVIDE A LASER BEAM

R. Brinker  
Engineering/Taylor/Kay

Sarofeen/F&N

8-7-81 Disclosure received--inventors notified.  
3-3-82 Disclosure reviewed with Kay; he requested that we conduct search.  
6-11-82 K&S requested to conduct search.  
7-9-82 Search results received.  
8-5-82 Disclosure to F&N for application preparation.

\* \* \* \* \*

0000015593



**1079** FLUIDIZED BED VIBRATORY SEPARATOR

R. Thatcher and L. Turano  
Engineering/Hayward/Pasquine/Kay

Object of the invention is to effect a separation of tobacco filler from stem or, or laminate leaf from laminate and stem.

Sarofeen/F&N/Diana

8-7-81 Disclosure received--inventors notified.  
3-3-82 Transferred to Engineering docket.  
6-8-82 Conference with Diana and inventors.  
6-11-82 Disclosure to F&N for application preparation.  
7-21-82 Proposed claims received.  
7-30-82 Letter to F&N: claims OK; will conduct search.

\* \* \* \* \*

**1080** NOVEL CLASSES OF MONOACYLPYRAZINES

D. Williams, E. Southwick, and Y. Houminer  
Chemical Research/Sanders/Osdene

In one of its embodiments the present invention provides a smoking composition which contains a novel type of bicyclic acylpyrazine flavorant additive as exemplified by 2-acetyl-5,6,7,8-tetrahydroquinoxaline.

Inskeep/D&O

8-11-81 Disclosure received--inventors notified.  
2-8-82 Supplemental disclosure received.  
3-4-82 Disclosure to D&O for application preparation.  
4-22-82 Draft received--to inventors for review.  
8-2-82 Comments on draft to D&O.

\* \* \* \* \*

0000015594

1082 CONTROLLED TOBACCO SIZE

C. Wood  
Tobacco Product Standards/Bates

A rotor/cutting device designed to produce a size controlled tobacco material to provide overall larger tobacco pieces from either tobacco leaf or tobacco sheet material in tobacco stemming and tobacco sheet processing.

Blish  
8-11-81 Disclosure received—inventors notified.

\* \* \* \* \*

1083 SMOKING ARTICLE - MARK II

H. Lanzillotti and J. Hearn  
Flavor Development/Daylor/Meyer

Palmer/F&N/Shaw

8-14-81 Disclosure received—inventors notified.  
10-6-81 Shaw indicated he is waiting for more info from inventor.  
11-12-81 Phone conference between Shaw and Hearn to discuss approaches and experiments.  
4-16-82 Shaw conference with Hearn and Burnett; copies of PM 955 and 990 to Hearn at Shaw's request.  
7-13-82 Draft application received—to inventors for review.  
7-14-82 Shaw conference with inventors.  
8-9-82 Additional examples to F&N.

\* \* \* \* \*

0000015595

## 1085 PROCESS FOR INCREASING THE CYLINDER VOLUME

E. Mooz  
Biomaterials/Whidby/Farone

This invention relates to a process for increasing the cylinder volume of cut filler using radiant heat treatment. Samples of blended cut filler, bright cut filler, or burley cut filler at different initial moisture levels with no puffing agent were thermally treated by a series of ten, 2500 watt radiant heat lamps for 4 to 10 seconds using a microprocessor controlled program. After thermal treatment, the samples were reequilibrated and submitted for CV/OV determinations. The OV values were not significantly changed, but the CV values were increased by 5% to 12%, depending upon the degree of thermal treatment.

Related to 1048

Inskeep/F&N/Shaw  
Code I

11-4-81 Disclosure received--inventor notified.  
12-15-81 F&N has copy of disclosure.  
5-5-82 Letter from Shaw asking for instructions.  
5-10-82 Shaw instructed by phone to proceed with application preparation.

\* \* \* \* \*

## 1087 PROCESS IDENTIFICATION AND CONTROL

E. Grollimund  
Engineering/Taylor/Kay

This is a spray function to first spray glue onto paper followed by an ink spray. It is designed to mark the point on a bobbin of cigarette paper which is undergoing perforation to show where high speed, normal perforation began.

Sarofeen/F&N

11-16-81 Disclosure received--inventor notified.  
3-3-82 Disclosure reviewed with Kay; he requested that we conduct search.  
3-30-82 In-house search completed; search requested from K&S.  
4-30-82 K&S search results received.  
8-5-82 Disclosure to F&N for application preparation.

\* \* \* \* \*

0000015596

1091 TOOL STEEL APPLIED AS CORK CUTTING KNIVES

A. Gillespie and A. Pasquine  
Engineering/Taylor/Kay

The present invention relates to paper cutting and more particularly to a cutting device for cigarette tipping paper as one of the process steps in manufacturing cigarettes.

Gregory

1-5-82 Disclosure received--inventors notified.  
2-3-82 Discussed with Kay/Reid--metallurgist to provide a theory of why T15 material wears well.  
6-11-82 Draft application to inventors for review.  
7-15-82 Memo to inventors requesting completion of review.

\* \* \* \* \*

1092 SMOKING MATERIAL

D. Teng  
Biomaterials/Whidby/Farone

A new and novel smoking composition containing blends of commercially available strains of tobacco wherein certain components thereof have been modified by non-traditional curing procedures and/or processing to produce improved smoking characteristics such as taste and aroma while providing reduced delivery of total particulate matter, nicotine and certain gas phase constituents including CO, HCN, NO and the like.

Schardt

1-7-82 Disclosure received--inventor notified; in-house search completed.  
7-20-82 Supplemental disclosure received.  
8-6-82 First draft completed--to inventor for review.

\* \* \* \* \*

0000015597

### 1093 TAR DELIVERY CIGARETTE

W. Geiszler  
Cigarette Development/Gauvin/Meyer

The invention is a variable FTC tar delivery cigarette based on the use of a porous tipping paper. The smoker can manipulate the cigarette in such a way as to make it have any one of many FTC tar deliveries when smoked by the FTC smoking procedure. The tar variation is achieved by varying filter dilution by sliding a non-porous ring tipping to various positions over a porous tipping. The porous tipping could be perforated also to allow for higher filter dilution levels than achievable with the porous tipping itself.

Related to 999

Blish  
1-25-82 Disclosure received--inventor notified.  
3-26-82 Search requested.  
4-23-82 In-house search completed.  
7-9-82 Search results to inventor for review.

\* \* \* \* \*

### 1094 SHORT CYCLONE

R. Gaudlitz  
Tobacco Processing and Fabrication/Knudson/Turano

A cyclone separator for quickly and gently separating expanded tobacco in the expansion process from the hot carrier gas includes a helically ramped inlet leading the tobacco and gas in about one revolution spirally descending into the separation chamber laying the tobacco along the chamber wall. A horizontal baffle positioned within the chamber and forming an annulus with the chamber wall deflects the hot carrier gas toward the exhaust conduit centrally disposed within the helically ramped inlet while the tobacco continues to spirally descend along the chamber wall and slips through the annulus and out the bottom of the separator. The tobacco remains in the separation chamber for only about three revolutions. In one embodiment radially extending vanes below the baffle direct conditioning gas up through the annulus countercurrent to the flow of tobacco thereby slowing and cooling the tobacco.

Gregory  
2-4-82 Disclosure received--inventor notified.  
5-5-82 In-house search completed.  
6-1-82 K&S requested to conduct search.

\* \* \* \* \*

0000015598

## 1095 TOBACCO SMOKE

W. Chan  
Chemical Research/Sanders/Osdene

This invention relates to an improved smoking tobacco product and the method of making the same, and more particularly to an improved smoking tobacco product having incorporated therein aroma- and flavor-producing additives which improve the smoking characteristics thereof.

Inskeep  
2-17-82 Disclosure received—inventor notified.  
4-29-82 Disclosure reviewed and revised by inventor.  
6-23-82 Draft completed and sent to inventor for review.  
7-12-82 Inventor's comments on draft received.  
8-2-82 Draft to SAH for management review.

\* \* \* \* \*

## 1096 ADJUSTABLE SMOKE DELIVERY CIGARETTE

R. Newsome, R. Thesing, W. Houck, W. Nichols  
Cigarette Development/Gauvin/Meyer

A cigarette and method for making the same to allow for ready adjustment of air dilution of the smoke, the quality of flavor and intensity of the smoke. The cigarette is made with elongated slits in impervious tipping lying at angles to and arranged to overly elongate slots in impermeable filter plug wrap. The tipping extends only partially over the full length of the filter plug to allow for grasping the end of the plug and turning the plug in the tipping to achieve variable sized air openings for selectively diluting the smoke with air. Indicia are provided on the plug and tipping to allow for presetting to a given desired smoke concentration by presetting the rotatable filter plug to concentration desired.

FILED Sarofeen/F&N/Shaw  
2-24-82 Disclosure received—inventor notified; in-house search completed.  
6-29-82 Shaw here to meet with inventors.  
7-8-82 In-house search completed.  
7-20-82 Executed and mailed to F&N for filing.

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0000015599

#### 1097 PVA ENCAPSULATION

R. Newsome, R. Thesing, W. Houck, W. Nichols  
Cigarette Development/Gauvin/Meyer

This is a system in which menthol or other volatile flavors are dissolved in a stock solution of ethanol and/or ethanol and triacetin and mixed between 2 and 4 parts PVA with one part of the stock solution. The dry film then releases the flavor when activated with moisture.

Inskeep  
3-16-82 Disclosure received--inventors notified.  
3-30-82 In-house search completed--to inventors for review.  
4-5-82 Search results to inventors for review.  
4-20-82 Discussion with Newsome and Thesing re references and present work; they will send more information.

\* \* \* \* \*

#### 1098 TAMPER PROOF HINGE-LID PACK

Wallace David  
Engineering/Kay/Taylor

A hinged lid box, particularly adapted for packaging cigarettes wherein separable tabs are provided on each side of the box, the tabs being easily broken upon initial opening of the box to allow subsequent opening and closing of the box.

FILED Schardt  
3-23-82 Disclosure received--inventor notified.  
4-6-82 In-house search completed--to inventor for review.

\* \* \* \* \*

#### 1099 DRAW ROLLER TOBACCO LEAF SIZING APPARATUS

R. Thatcher, F. King, W. David  
Engineering/Kay/Taylor

Schardt  
7-15-81 Disclosure submitted to Patent Staff for review.  
10-12-81 In-house search completed.  
3-26-82 Disclosure file opened.

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0000015600

## 1100 APPARATUS FOR A CIGARETTE PACKING MACHINE

FTR

A conveyor with a conveying track in the form of a semi-circular arc, along which inner collars with upright tabs are guided driven by revolving conveyor belts, is used for the transfer of prestamped prefolded inner collars for cigarette packs.

Blish

5-14-82 Disclosure file opened.

7-19-82 Letter to Mandiratta with questions concerning application; Jim Kay asked to recommend someone in Engineering to bring NAB up to date on this technology.

\* \* \* \* \*

## 1101 APPARATUS FOR HANDLING PACKED GOODS

FTR

Apparatus capable of controlling the handling of cases of cigarettes and, more precisely, their arrangement on standard pallets used for shipping.

Gregory

5-14-82 Disclosure file opened.

\* \* \* \* \*

## 1102 DEVICE FOR SUPPLYING A MACHINE WITH RIGID ELEMENTS

FTR

This invention relates to a device for supplying a machine with rigid elements having the shape of segments of bars.

Gregory

5-14-82 Disclosure file opened.

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### 1103 FILTER MATERIAL FOR REDUCTION OF NO<sub>x</sub>

R. Rainer and C. McClung  
Tobacco Fundamentals/Watson/Turano

A granular silica gel that has been treated with an aqueous solution of sodium permanganate containing colloidal silica. The presence of the colloidal silica has been found to unexpectedly increase the storage stability of the composition, thereby causing an otherwise impractical filter material to be of value for use in cigarettes. The filter material has passed the various biological screening tests applied to cigarette components. Many prior attempts to stabilize the granules were unsuccessful.

Palmer/F&N/Shaw

5-6-82 Disclosure received--inventors notified.

5-27-82 Disclosure to F&N for consideration as to whether there is any basis for an application.

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### 1104 DEVICE TO MEASURE DEGREE OF SEAL ON PACK OVERWRAP

P. Martin and W. Gentry  
Physical Research/Kassman/Farone

A device to measure degree of seal on pack overwraps. A low flow rate of air is forced through the pack from a short needle inserted on the side of the pack. A septum is placed on the needle to ensure an airtight seal. The device measures the pressure drop that must be applied to maintain a constant air flow.

Gregory

6-7-82 Disclosure file opened.

7-9-82 K&S asked to conduct search.

7-28-82 K&S search results received.

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1105 LONG CHAIN ALKYL AND ALKENYL ESTERS OF OXOCARBOXYLIC ACIDS

D. Williams, E. Southwick, and W. Edwards III  
Chemical Research/Osdene/Sanders

This invention describes a novel class of long chain alkyl and alkenyl esters of oxocarboxylic acids which act as tobacco flavorants.

Gregory/D&O

- 6-10-82 Disclosure file opened.  
6-16-82 Disclosure to D&O with request to perform patentability search and advise scope of patent protection obtainable.  
7-27-82 Search results received—to inventors for review with request for additional information; D&O instructed to draft application.

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1106 LIQUID DISTRIBUTION DEVICE

FTR

The invention provides a liquid distribution device for use in, for example, extraction beds. The device comprises an elongate chamber or hollow arm defined by two plates, a cylinder closed at one end by a wall and opening at the other end into the chamber through one of the plates and a pipe opening tangentially into the cylinder. Liquid enters the cylinder through the pipe, and flows around the side wall of the cylinder and impinges upon the opposed plate of the chamber, where it is spread along the plate and leaves through the slot between inclined portions of the plates.

- 7-9-82 Disclosure file opened.

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1107 BREATH FRESHNER CIGARETTE

R. Newsome, R. Thesing, W. Houck, and W. Nichols  
Cigarette Development/Gauvin/Meyer

A cigarette which releases a flavor on or near the last puff to produce a cooling or refreshing sensation in the mouth.

Gregory

- 3-26-82 Disclosure submitted to Patent Staff for review.  
7-15-82 Disclosure file opened.  
7-27-82 In-house search completed.

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#### 1108 FLAVORANTS FOR SMOKING PRODUCTS

R. Cox  
Analytical/Kuhn/Farone

The heating of a sugar with ammonium hydroxide is known to produce compounds identical to those formed in the nonenzymatic browning reaction and are thought to be responsible for the roasted aroma of many foods. We have discovered that a stable intermediate is formed in these reactions. Isolation and characterization of these intermediates suggest that they are the pyranose form of the imine of the ammonia addition product. Preliminary tests suggest that the intermediate isolated from glucose and ammonium hydroxide may be a useful tobacco flavorant, imparting a Burley characteristic to test cigarettes.

Inskeep  
7-9-82      Disclosure submitted to Patent Staff for review.  
7-16-82     Disclosure file opened.

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#### 1109 USE OF LIQUID CARBON DIOXIDE

T. Howell  
Beverage R&D/Assar

7-27-82      Disclosure file opened.

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#### 1110 CIGARETTE WITH ROTATING FILTER (Project Data)

R. Newsome and W. Nichols  
Cigarette Development/Gauvin/Meyer

A cigarette that has a rotating filter that changes the dilution of the cigarette. The filter is cut part of the way through allowing a center core of tow to act as the axis of rotation and a means to retain the filter in the cigarette. This plug is then attached to the cigarette with tipping paper that has a special pattern of glue liner.

Sarofeen  
7-30-82      Disclosure file opened.

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#### 1111 REDUCTION OF TAR DELIVERY

W. Geiszler and R. Newsome  
Cigarette Development/Gauvin/Meyer

A cigarette whose FTC tar delivery can be reduced through the use of an overtipping containing a breakaway sliding sleeve. The cigarette is assembled with a layer of non-porous tipping over another layer of perforated porous tipping. The overlying layer contains a means of breaking a sleeve away from the fixed mouth-end section of the overtipping, such as a row of closely spaced perforations. When the sleeve is broken away and slid forward toward the tobacco column, ventilation means in the underlying tipping are exposed to permit filter ventilation. The new position of the sleeve can be used to define a new tipping length on the cigarette, and therefore a new butt length for the FTC tar smoking procedure.

Sarofeen  
7-30-82      Disclosure file opened.

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#### 1112 LINEAR ACTUATOR APPLICATION FOR GD A400 TRAY REVOLVER

R. Allison (Louisville)  
Engineering/Kay/Taylor

Object: to provide means of mechanical overload protection on GD A400 tray transport.

Sarofeen/F&N  
4-82      Disclosure submitted to Patent Staff for review.  
8-3-82      Disclosure file opened; disclosure to F&N for application preparation.

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#### 1113 REDUCTION OF FILLER IN WRAPPER TO REDUCE VISIBLE SIDESTREAM

K. Gunst, B. Goodman, and R. Greene  
Cigarette Development/Gauvin/Meyer

0000015605

Use of lower amounts of fillers (usually calcium carbonate) in cigarette wrapper for the purpose of reducing the visibility of sidestream smoke. A 7.5% calcium carbonate filler level will give a 20% reduction by light extinction methods.

Blish/F&N/Shaw  
7-2-82      Disclosure submitted to Patent Staff for review.  
8-4-82      Disclosure file opened; disclosure to F&N for application preparation.  
8-12-82      Shaw conference with inventors.

#### 1114 CIGARETTE WITH SELECTABLE DILUTION LEVEL

E. Grollmund  
Engineering/Kay/Taylor

The scope of this invention depicts a cigarette with annular rows of perforations and a cigarette sleeve which provides preset positioning of said sleeve or sleeves relative to the rows of perforations so as to cover or leave uncovered annular rows of perforations and in so doing provide, for example, 5 levels of dilution when 4 rows of perforation are used, etc.

Sarofeen  
8-9-82      Disclosure file opened.

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#### 1115 ROTARY LEAF STRIPPER WITH CONCAVE PLATEN

F. King and R. Thatcher  
Engineering/Kay/Taylor

Object: the invention is intended to strip lamina from stem on whole leaf tobacco while increasing lamina size and reducing degradation, dust generation, lamina tearing, and power requirements per pound processed (as compared with present practices).

Sarofeen  
7-8-82      Disclosure submitted to Patent Staff for review.  
8-9-82      Disclosure file opened.

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#### 1116 WHOLE TOBACCO LEAF INDEXING AND ORIENTING ROLL

F. King and M. Maher  
Engineering/Kay/Taylor

Object: the invention is intended to orient and index cured, whole leaf tobacco that has been aligned with the stems' axes parallel to each other and perpendicular to conveyor travel.

Sarofeen  
7-8-82      Disclosure submitted to Patent Staff for review.  
8-9-82      Disclosure file opened.

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### 1117 WHOLE LEAF INDEXING AND ORIENTING RAKE

F. King and M. Christy  
Engineering/Kay/Taylor

Object: the invention is intended to orient and index cured, whole leaf tobacco that has been aligned with the stems' axes parallel to each other and perpendicular to conveyor travel.

Sarofeen  
7-8-82 Disclosure submitted to Patent Staff for review.  
8-9-82 Disclosure file opened.

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### 1118 MULTIPLE DRAPING LEAF ALIGNMENT APPARATUS

F. King and S. Muller  
Engineering/Hayward/Kay/Taylor

Object: to align the leaves of whole leaf tobacco so that the stems axes are parallel to each other and perpendicular to conveyor travel.

Sarofeen  
7-8-82 Disclosure submitted to Patent Staff for review.  
8-9-82 Disclosure file opened.

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